

ABSTRACT OF THE DISCLOSURE

A method of manufacturing a semiconductor device having electrodes penetrating a semiconductor substrate, the method includes the steps of forming a concave portion extending from an active surface of a semiconductor substrate on which an integrated circuit is formed to an interior of the semiconductor substrate, forming a first insulating layer on an inner surface of the concave portion, filling an inner side of the first insulating layer with an electroconductive material so as to form an electrode, exposing a distal end portion of the first insulating layer by etching a rear surface of the semiconductor substrate, forming a second insulating layer on a rear surface of the substrate, and exposing the distal end portion of the electrode by removing the first insulating layer and the second insulating layer from a distal end portion of the electrode.